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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,780	11/20/2003	Jean Joseph Collette	DN2003182	8395

27280 7590 06/21/2005

THE GOODYEAR TIRE & RUBBER COMPANY
INTELLECTUAL PROPERTY DEPARTMENT 823
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AKRON, OH 44316-0001

EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/717,780	Applicant(s) COLLETTE ET AL.	
	Examiner Steven D. Maki	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>040705,060104,112003</u> | 6) <input type="checkbox"/> Other: ____ |

Handwritten initials

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- 1) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 2) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Japan 105

- 3) **Claims 1-6, 9-10 and 13 are rejected under 35 U.S.C. 102(a) as being anticipated by Japan 105 (JP 2002-356105).**

See abstract, figure 3(b) and paragraph 25 of machine translation.

Japan 925

- 4) **Claims 1, 3-6, 9-10, 13, 15 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 925 (JP 2000-102925).**

See abstract and figure 14.

Ishihara

- 5) **Claims 1, 5-6, 9-10, 15 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishihara (US 20020139164).**

See figure 16(b) and 17(a)(ii).

Japan 923

6) Claims 1-6, 13 and 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 923 (JP 10-80923).

Japan 923 discloses a pneumatic tire having a rubber tread comprising blocks, circumferential grooves and lateral grooves. See figure 1 and machine translation. Each block is provided with a sipe having two horizontal rows of alternating projections and recesses. See figures 1-5. The sipe is formed by a corresponding mold blade 50. See figures 6 and 7 and machine translation. Each protrusion terminates in a "planar vertex" as can best be seen in figures 4, 5 and 7.

As to claims 1 and 15, the claimed tire tread and claimed mold blade are anticipated by Japan 923's tread and mold blade. See figures 1-7, abstract and machine translation. The claimed sipe fails to exclude cut rubber connecting elements 38, 39. The claimed mold blade fails to exclude holes 58, 59.

As to claims 2 and 16, Japan 923's sipe and mold blade have constant width.

As to claims 3-4 and 17, Japan 923's sipe and mold blade have two horizontal rows of projections and recesses, which alternate in the axial and radial directions.

As to claims 5-6, 9-10 and 18, the sipe and mold blade may have other shapes such as rectangular (paragraph 21), rhombus (paragraph 23) or hexagon (paragraph 23). It is acknowledged that the embodiment of figure 12 alternates circles with rectangles. However, one of ordinary skill in the art would readily understand from a reading of Japan 923 as a whole that alternating rectangles may be used.

As to claim 13, the axial width of the sipe increases to a maximum as the radial depth increases since (a) the sipe opens to both sidewalls of the block and (b) the sidewalls of the block are inclined. See figure 2.

As to claim 19, the geometric configuration at the planar vertex is the same as that at the centerline.

7) Claims 5-7, 9-11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 923 and optionally Japan 925.

As to claims 5-7, 9-11 and 18, it would have been obvious to one of ordinary skill in the art to use a polygonal configuration as claimed for the alternating projections and recesses of Japan 923 sipe / mold blade since (1) Japan 923 teaching alternating projections and recesses having the same geometric shape (truncated cone, figure 1-7), (2) Japan 923 suggests using other shapes such as rectangular (paragraph 21), rhombus (paragraph 23) or hexagon (paragraph 23) and optionally (3) Japan 925 suggests forming a sipe having alternating square projections and recesses (figure 14). As to claim 7, it would have been obvious to use a combination of different polygon shapes since (1) Japan 923 and optionally Japan 925 suggest using alternating polygon shapes and (2) Japan 923 teaches that different shapes may be combined (figure 12).

8) Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 923 and optionally Japan 925 as applied above and further in view of Japan 105 or Japan 916 (JP 2002-192916).

As to claim 10, it would have been obvious to one of ordinary skill in the art to incline the planes extending toward the planar vertex of the protrusions and recesses at

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the same angle in view of Japan 105 or Japan 916's suggestion to form alternating projections and recesses having planar vertexes using inclined planes.

9) Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 923 and optionally Japan 925 and in view of Japan 105 or Japan 916 as applied above and further in view of Lagnier (US 5783002).

As to claim 11, it would have been obvious to one of ordinary skill in the art to use different angles as claimed since Lagnier, directed to incisions (sipes) having alternating protrusions and recesses, suggests using a configuration (e.g. wavelength) which is constant or varying in the depth direction (col. 4 lines 15-35).

10) Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 923 in view of Heinen (WO 99/48707).

As to claims 8 and 12, it would have been obvious to one of ordinary skill in the art to decrease the cross sectional area / axial extent of the projections and recesses as the radial depth increases since Heinen, also directed to sipes / mold blades having projections and recesses, suggests decreasing the size of the projections / recesses as the radial depth increases as an alternative to using constant size projections / recesses (see figure 6).

11) Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 923 in view of Maitre (US 5095963) or Lagnier (US 4994126).

As to claim 14, it would have been obvious to one of ordinary skill in the art to branch Japan 923's sipe as claimed in view of the suggestion from either Maitre or Lagnier to branch the radially inner portion of a sipe to improve wear resistance.

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12) Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 923 in view of Heinen and/or Ishihara.

As to claim 20, it would have been obvious to one of ordinary skill in the art to use a continuous row and a discontinuous row of Japan 923's alternating projections and recesses in view of (1) Heinen's teaching to vary the arrangement of projections and recesses to obtain desired stiffness variations (page 4, figure 6) and/or (2) Ishihara's teaching to arrangement secondary shapes in a blade for a sipe so as to form a "continuous row" on an upper side of the blade and a "discontinuous row" at the lower side of the blade (figure 16b)..

Remarks

13) The remaining references are of interest.

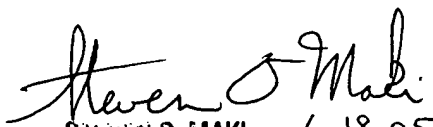
14) No claim is allowed.

15) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
June 18, 2005


STEVEN D. MAKI 6-18-05
PRIMARY EXAMINER
~~GROUP 1300~~
Av 1733